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CHAPTER 12. ANIMAL SUBJECTS IN RESEARCH

RESCISSIONS

The following material is rescinded:

a. **Manuals**

M-3, part I, chapter 12, dated January 31, 1989

b. **Circulars**

10-87-27 and Supplement No. 1
10-87-53 and Supplement No. 1
10-87-110 and Supplement No. 1

CHAPTER 12. ANIMAL SUBJECTS IN RESEARCH

12.01 ETHICAL CONSIDERATIONS

a. Animal subjects contribute immeasurably to advancements in medical science. Most research and testing involving human patients is based on the results of animal experimentation.

b. Investigators should use the least sentient species that will permit the attainment of research objectives and follow all reasonable measures to minimize pain and distress to animal subjects.

c. An investigator should use the procedures least painful to experimental animals in conducting research. A doctor of veterinary medicine must be consulted in planning a study that includes procedures likely to cause pain to an animal subject.

12.02 ORGANIZATION AT VA CENTRAL OFFICE

a. Veterinary medical concerns, particularly issues related to care and use of experimental animals, are within the purview of the CVMO *(Chief Veterinary Medical Officer)*.

b. **Qualifications.** The CVMO must have a degree of Doctor of Veterinary Medicine or Veterinary Medical Doctor from an approved school of veterinary medicine and have extensive training and experience in laboratory animal medicine. The quality of such experience may be evidenced in part by certification in laboratory animal medicine by the American College of Laboratory Animal Medicine.

c. **Supervisory Controls.** The CVMO is responsible directly to the ACMD for R&D *(Assistant Chief Medical Director for Research and Development)*, VA Central Office.

d. **Primary responsibilities** include but are not limited to:

(1) Advising the ACMD for R&D and the Directors of R&D Services, regarding animal welfare issues and animal [ ] facility operations including care and use of experimental animals, selection of veterinary medical personnel serving field facilities, [ ] animal [ ] facility construction and renovation, and equipment specifications.

(2) Developing and implementing policies on a nationwide level for improving laboratory animal medicine in the VA.

(3) Providing policy guidance to VA health care facilities on the role and function of animal facilities.

(4) Acting as liaison with other government agencies, and public and private institutions engaged in biomedical research involving animal subjects.

(5) Participating as an expert in laboratory animal medicine with national and international scientific and professional organizations.

(6) Communicating with the media, special interest groups, and the general public concerning animal welfare issues and commitment of the VA to such issues.

(7) Monitoring compliance of VA medical centers with applicable Federal, including NIH *(National Institutes of Health)* and State laws and regulations pertaining to animal care and research use.

(8) Providing guidance and assistance to VA medical centers in attaining and maintaining full accreditation by AAALAC *(American Association for Accreditation of Laboratory Animal Care)*.

12.03 ORGANIZATION AT THE VA MEDICAL CENTER

a. **Professional Staffing**

(1) Veterinary medical services may be provided through appointment of a full- or part-time Veterinary Medical Officer, appointment of a qualified veterinary medical consultant, or a combination of a qualified consultant and a clinical veterinarian.

(2) VMO (Veterinary Medical Officer)

(a) Qualifications

1. A VMO must have a degree of Doctor of Veterinary Medicine or Veterinary Medical Doctor from an approved school of veterinary medicine and have training and experience in laboratory animal medicine. [The organizational title of a VMO is Chief, VMU *(Veterinary Medical Unit)*.]

2. Appointment to a position of VMO is subject to approval by the ACMD for R&D, VA Central Office, regardless of the source of salary support.

(b) Supervisory Controls. A VMO is responsible directly to the ACOS for R&D.

(c) Primary duties of individuals in this position include but may not be limited to:

1. Directing the design and operation of the animal [ ] facility to ensure compliance with current animal welfare laws, regulations, and policies and to support R&D programs using animal subjects.

2. Providing professional guidance and technical support to the health care facility's investigators in planning, executing, and directing R&D activities using animal subjects.

3. Initiating or reviewing requests for equipment used in the animal [ ] facility and plans for animal [ ] facility construction and renovation.

4. Serving as a member of the Animal Studies Subcommittee.

5. Reviewing all proposals that include the use of live vertebrate animals before consideration by the Animal Studies Subcommittee.

6. Participating in semiannual inspections of animal [ ] facilities.

7. Contributing to the promotion of favorable community relations and increased public appreciation of the importance of animal studies in improving patient care.

8. Participating in VA Central Office directed efforts that contribute to improved animal research support of R&D programs throughout the VA health care system.

(3) VMC (Veterinary Medical Consultant)

(a) Qualifications. Qualifications of a VMC are the same as those described for a VMO. Appointment as a VMC is subject to approval of the ACMD for R&D, VA Central Office regardless of the sources of salary support.

(b) Supervisory Controls. Consultants are responsible to the ACOS for R&D.

(c) Contractual Agreement

1. Contracts for veterinary medical consultation may be negotiated either with an organization or an individual provided that services are provided by a qualified VMC or an individual supervised by a qualified VMC. Such contracts must receive prior approval by the ACMD for R&D regardless of source of support.

2. When a VA medical center obtains veterinary medical services through a contract rather than employment of a VMO, arrangement must be made for regularly scheduled visits. The frequency of visits will depend on the size and nature of research activity at a particular location, but under no circumstance will visits to a VA medical center [animal facility] with an ongoing program of animal research be less frequent than four times annually. Supplemental visits, scheduled or unscheduled, may be arranged as required to ensure provision of adequate veterinary medical care as described in paragraph 12.04d (1) and (2).

(d) Primary duties of a VMC include:

1. Providing guidance to the ACOS for R&D, the AA for R&D, and the [VMU] supervisor in designing and directing operations of the animal [ ] facility to ensure compliance with applicable animal welfare laws and regulations, and to support R&D programs using animal subjects.

2. Other duties as described in paragraph 12.03a(2)(c)(2) through (8).

(4) Clinical Veterinarian

(a) When circumstances preclude the provision of adequate and timely veterinary medical care by a VMO or VMC, a local veterinarian may be employed to provide elements of this service commensurate with training and skills. The clinical veterinarian in such cases functions within the plan of adequate veterinary medical care developed by the responsible VMO or VMC. Under such circumstances a clinical veterinarian supplements, but does not replace, services of the VMO or VMC.

(b) Clinical veterinarians must be licensed to practice veterinary medicine in a state. Exceptions to this requirement must be approved by the ACMD for R&D, VA Central Office.

(c) Duties include:

1. Emergency medical and surgical care of animal subjects.

2. Diagnostic and therapeutic measures for sick or injured animals.

3. Implementation of preventive medicine practices.

b. [ ] **Supervisor**

[(1) Each facility with an active program of animal research should assign an individual responsibility for routine animal care activities. The organizational title of this position is Supervisor, (VMU (Veterinary Medical Unit).]

(2) **Qualifications.** Through training and/or experience, the VMU supervisor must possess adequate knowledge and skills in laboratory animal science and technology, record keeping and personnel management for the day-to-day operations of the facility.

(3) **Supervisory Controls.** The [VMU] supervisor is responsible to the VMO when such position exists. In the absence of a VMO, the [VMU] supervisor is responsible to the Administrative Assistant for R&D.

(4) Primary Duties

(a) Scheduling work assignments of the [VMU] staff and monitoring quality and quantity of work performed.

(b) Providing orientation and training for [VMU] employees.

(c) Instructing and assisting research technicians and investigators in performance of routine techniques for animal experimentation.

(d) Maintaining essential records (e.g., animal and equipment inventories, procurement records).

(e) Ensuring the maintenance of a sound program of animal husbandry.

(f) Ensuring the maintenance of a stable animal environment (temperature, lighting, ventilation) and promptly reporting malfunctions to proper authorities.

(g) Noting and reporting abnormal behavior or illness in animal subjects to the designated veterinarian *(VMO, VMC, or clinical veterinarian)*.

(h) Recording and reporting misuse of animals during experimentation or deviation from approved protocols to the VMO, VMC, clinical veterinarian, or other member of the Animal Studies Subcommittee.

12.04 OPERATIONS AT THE VA MEDICAL CENTER

a. [VMUs *(Veterinary Medical Units)*] must be operated as administratively centralized [facilities] directed by a VMO *(in those facilities with a full- or part-time VMO)* and/or a [VMU] supervisor. Animal use for both educational and research purposes is subject to provisions of this section.

b. Equipment

(1) Requests for equipment to be used for animal husbandry must be initiated by the [VMU] office to ensure suitability for the intended purpose and compatibility with existing equipment.

(2) Equipment orders exceeding [$10,000] in value and not purchased under GSA contracts must be approved in advance by the Office of the ACMD for R&D, VA Central Office. Orders for animal caging and mechanical cage washing equipment are of particular concern in this regard.

c. Animal husbandry practices must be in accordance with the PHS *(Public Health Service)* "Guide for the Care and Use of Laboratory Animals" *(hereafter referred to as the "Guide")*, the IRAC *(Interagency Research Animal Committee)* "Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research and Training," and USDA *(United States Department of Agriculture)* Regulations published as Title 9, CFR, subchapter A, parts 1, 2, 3, 4 [and subsequent amendments].

d. Adequate veterinary medical care must be provided for all animals maintained for research, testing, or educational purposes.

(1) The program must be planned and monitored by a veterinarian qualified by training or experience for this responsibility and must include frequent observation of animals by a person qualified to verify the health of each animal, the provision of veterinary medical care for animals found to be ill or injured and the application of currently accepted measures of prophylaxis and therapy. Adequate veterinary medical care also includes consideration for humane aspects of animal experimentation such as the proper use of anesthetics, analgesics and tranquilizers and the implementation of such measures as directed by the responsible veterinarian to alleviate unacceptable levels of pain or distress to animal subjects. The program must be directed either by a VA veterinary medical officer or a veterinary medical consultant knowledgeable in laboratory animal medicine.

(2) A written program of adequate veterinary medical care must be developed by the responsible veterinarian and ACOS. The program will be reviewed yearly and will include a schedule of visits if a part-time or consulting veterinarian is used. A copy of the written program will be on file in the facility and will be submitted to the ACMD for R&D, VA Central Office upon request.

e. Animal Procurement

(1) Any animal used in a VA facility must be acquired in accordance with Federal laws and regulations and VA policy.

(2) NCI (National Cancer Institute). The AGPB (Animal Genetics and Production Branch) of the NCI provides various species of laboratory rodents to VA investigators for locally approved VA research projects. These animals are supplied to VA investigators at [ ] the same price charged NCI grantees. [To procure animals through the NCI submit a written purchase order to Mr. Clarence Reeder, NCI, Building 1020, Room 5, Frederick Cancer Research Center, Frederick, MD 21701. When the NCI receives a purchase order they will instruct a contractor to ship the animals requested and bill the VA medical center submitting the order. All payments for animal purchase are to be made directly to the contractor supplying animals.]

(3) NIA (National Institute of Aging). [An interagency agreement has been negotiated with the NIA for provision of selected species, stock, strains, and age groups of animals, subject to availability of the particular animal(s) requested and eligibility of investigators to receive animals under terms of the interagency agreement. Investigators who are receiving funding for Merit Review, Career Development, or other projects approved

by VA Central Office in which aged rodents are required and who wish to obtain NIA animals shall, upon receiving notification of funding, submit a memorandum to the Assistant Chief Medical Director for R&D (142/4) and list the following:

(a) Name of principal investigator.

(b) Address of principal investigator.

(c) Title(s) of VA project(s) in which aged rodents are to be used.

(d) Species, strain, age, sex, and number of animals approved for VA funding.

1. The above information will be reviewed and, upon verification, forwarded to the NIA. Upon receipt of eligibility notification from VA Central Office, the NIA will inform the breeding facility of the names and addresses of VA investigators to whom animals may be shipped.

2. VA Central Office provides to the NIA a revised list of eligible VA recipients of aged rats and mice prior to October 1 of each year. VA investigators meeting qualifications for retention on a list of eligible recipients of aged mice and rats shall submit to the Assistant Chief Medical Director for R&D, attention (142/4), information listed above on or before September 1 of each year of continued eligibility.

3. To initiate a purchase request, an investigator, through the local R&D office, must submit to the local Supply Service a completed VA Form 10-4786, Request Form to Procure Special Animals for Aging Studies and a VA Form 90-2237, Request, Turn-In, and Receipt for Property or Services.

4. The local Supply Service will prepare and submit a purchase order (VA Form 90-2138) with the VA Form 10-4786 to the NIA.

5. Information regarding the source and cost of animals which is needed for preparation of a purchase order is obtained from the Office of Resource Development, NIA, telephone number (301) 496-6402. Purchase orders (VA Form 90-2138) are payable directly to the NIA contractor from whom animals are delivered.

(4) Requests for animal procurement will not be processed until it is determined by the VMO or VMU supervisor that the source of animals is appropriate and that adequate and appropriate housing will be available upon the animals' arrival.

(5) Delivery of live animals will be made directly to the [animal facility]. To avoid delay the procurement document must show specific locations in the [animal facility] where delivery is to be made. Appropriately skilled personnel must be designated to represent the contracting officer in receiving and inspecting live animals at the time of delivery.

f. Euthanasia

(1) Euthanasia of animal subjects when indicated must be performed in a manner that minimizes stress and discomfort to animals and avoids undue psychological distress to persons performing this task.

(2) Methods of euthanasia must follow recommendations of the most recent AVMA (American Veterinary Medical Association) Panel on Euthanasia. Any exception to these recommendations must be based on scientific necessity and requires advance approval of the local Animal Studies Subcommittee.

g. Standard Operating Procedures

(1) The [VMU] supervisor with guidance and assistance of the VMO or VMC must develop a manual of standard operating procedures setting forth schedules and methods of cleaning animal housing and research areas, feeding and watering practices, staff training, equipment maintenance and related activities.

(2) The standard operating procedures manual must be reviewed at least once annually by the [VMU] supervisor and the VMO or VMC to determine need for any changes in procedures.

h. Operating costs recovery

Investigators using animals will be charged a prorated share of total [animal care] costs [ ]. An annual review of rates with revision as indicated is recommended. Charges for animal care are to be based on projected operating costs less amount received in cost center 105 funding. Ordinarily projections of animal care costs are best made from records of previous year expenditures with inclusion of an inflation factor such as increase in the consumer price index.

i. Security

(1) Measures must be implemented to exclude the entry of unauthorized personnel into the animal facility. [Special attention to physical security is warranted by the threat of property destruction and theft by groups opposed to use of animals in research.]

(2) Requests for tours of the [animal facility] by members of the media and persons claiming to represent animal rights and animal welfare organizations should be handled with discretion and permitted only following approval of the VA medical center Director or designee.

(3) Inquiries regarding lost pets should be handled with caution and sensitivity. Permission to search an [animal facility] for a lost pet should be granted only after determining with reasonable certainty that the request is bona fide and after obtaining a detailed description of the missing pet including sex, color, markings, breed, approximate weight and age, and date last seen by the owner.

j. Use of Explosive Anesthetic Agents in [Animal Facilities]

(1) Newer anesthetic agents have essentially eliminated the necessity of using explosive agents for anesthesia in any species. Accordingly, use of such explosive agents for this purpose in animals weighing 1 kg. or more should be avoided in any animal research area.

(2) Use of ether or other explosive agents for anesthetizing [or euthanatizing] small rodents, birds or other animals weighing less than 1 kg., while discouraged, is permitted provided approval, following the prescribed procedure, is obtained in advance.

(3) If an investigator finds non-explosive agents unsuitable for anesthetizing [or euthanatizing] animals, authority to use ether or a similar agent in animals weighing less than 1 kg. is requested by submission of a Request to Use Explosive [Agents] following the format of appendix A.

(4) The "Request to Use Explosive [Agents]" is reviewed initially by the local Animal Studies Subcommittee, Veterinary Medical Officer and Safety Officer. If approved locally the request is forwarded to the appropriate [VHS&RA (Veterans Health Services and Research Administration)] Regional Director, Attention: Regional Safety Staff.

(5) The appropriate [VHS&RA] Regional Office's technical support staff reviews the Request to Use Explosive [Agents] for compliance with safety requirements and forwards the request with a recommendation for approval or disapproval to the ACMD for R&D (142) VA Central Office.

(6) The ACMD for R&D (142) reviews recommendations received from the Regional Office and justification for using explosive agents and approves or disapproves the request. The initiating investigator will be informed of the action taken by the ACMD for R&D, VA Central Office.

(7) Upon notification of approval by the ACMD for R&D, VA Central Office, the investigator initiating the request may proceed with the approved procedure, strictly observing prescribed safety precautions.

(8) Appropriate precautions must be followed in storage, use and disposal of ether or other explosive anesthetic agents. At a minimum, such precautions must include the following:

(a) Procedures must be performed within a properly operating, ventilated safety hood.

(b) All electrical equipment used with such agents must be located and powered outside the hood.

(c) Containers of ether or other explosive anesthetic agents must be placed in a safety hood throughout use and stored in an explosion proof refrigerator or if completely used, discarded following use.

(d) Containers of an explosive anesthetic agent and items containing traces of the agent must not be disposed of by incineration or by placement in waste receptacles in which contents are ordinarily incinerated.

(e) Care must be taken to ensure that all potentially explosive fumes have dissipated from animal carcasses and other objects before placement in refrigerated storage other than explosion proof refrigerators.

k. Use of Patient Care Areas and Equipment for Animal Studies

(1) Patient diagnostic, treatment and monitoring areas, and equipment may be used for animal studies only when such use is of potential value to human patients.

(2) When procedures are performed on animal subjects using areas or equipment also used for patients, appropriate measures must be taken to safeguard the health and comfort of patients who will be subsequently treated with those resources.

(3) To ensure that necessary precautions are taken, procedures performed on animals using patient care areas or equipment must be performed in accordance with the process described as follows:

(a) Approval of a VA facility Director must precede any use of patient areas and equipment for animal studies.

(b) Administrative approval must be requested by submission of a Request to Use Patient Care Procedural Area and/or equipment for Animal Studies following the format of appendix B.

(c) Upon approval by the VA facility Director, the study may be undertaken.

(d) A copy of the approved protocol must be forwarded by the facility Director to the ACMD for R&D (142), VA Central Office.

(e) Deviations from the approved protocol require submission of a revised protocol prepared and approved in advance of implementation as outlined for the original protocol. A copy of the approved revised protocol must be forwarded to the Assistant Chief Medical Director for R&D (142), VA Central Office.

(f) An individual responsible for use of instruments or equipment and space in patient care must be in attendance when research procedures are performed on animal subjects using such resources.

(g) Records of each procedure must be prepared by the principal investigator requesting use of patient care procedural areas in animal studies. One copy of these records must be retained by the principal investigator for a period of 3 years. A second copy must be forwarded to the ACOS for R&D within 24 hours of the procedure. Records must include:

1. Date of protocol approval.

2. Date procedure(s) performed.

3. Animal species and number used.

4. Equipment or instrumentation and patient-care area used and duration of use.

5. Name and title of individual responsible for use of instruments or equipment and space who was in attendance at the time of procedure(s).

6. Name and title of individual in attendance of the animal(s).

7. Name of individual inspecting equipment and patient-care area following animal research use.

8. Notation of any unanticipated events occurring during the procedure *(e.g., equipment malfunction, disturbance caused by animal subject, etc.)*.

l. **Animal Studies Subcommittee**

(1) Each VA medical center with a program of research involving use of live vertebrate animals must establish an Animal Studies Subcommittee of the R&D

Committee. [The subcommittee is analogous to what is referred to in USDA regulations as the IACUC *(Institutional Animal Care and Use Committee)*.] Members of the subcommittee are to be nominated by the R&D Committee and appointed by the VA medical center Director. Members other than those who are ex officio serve terms not to exceed 3 years, on staggered appointments.

(2) Composition. The Animal Studies Subcommittee must consist of not fewer than five members and must have at least:

(a) One member who is a doctor of veterinary medicine with training or experience in laboratory animal science and medicine, who has direct or delegated program responsibility for activities involving animals at the VA medical center; this member serves ex officio with vote.

(b) One member who is a practicing biomedical scientist experienced in research involving animals.

(c) One member who is a non-scientist *(e.g., ethicist, member of the clergy)*.

(d) One member who is not affiliated in any way with the VA medical center other than as a member of the subcommittee; this person must be appointed to represent the general community interests in the care and treatment of animals.

(e) At least one member of the parent R&D Committee.

(3) VA Functions of the Subcommittee

(a) **Facility Inspections**

1. The inspection must follow standards established in the most current "Guide" and current USDA Regulations promulgated in accordance with the "Animal Welfare Act." The inspection must include a review of both physical facilities and operational procedures. The subcommittee must inspect, at least once every 6 months, all animal study areas and animal facilities *(including satellite facilities)*.

2. After each inspection a report *(reports control exempt)* must be prepared which includes the following information:

a. A description of any items not in compliance with USDA Regulations or the "Guide" and a [reasonable and specific plan and schedule with dates for correcting each deficiency. Any failure to adhere to the plan and schedule that results in a significant deficiency remaining uncorrected shall be reported in writing within 15 business days by the subcommittee through the Research and Development Committee and the medical center Director to the ACMD for R&D (142).]

b. Any minority views of the subcommittee.

c. A list of members of the subcommittee present at the inspection with name, degree(s) and position *(job title)* of each member.

d. The signature of all members involved in the inspection and a list of all members not participating in the inspection.

e. A list and estimated cost of improvements needed to correct deficiencies that cannot be accomplished using locally available resources.

[3. The report must be retained on file for at least 3 years by the ACOS for R&D. A copy of the report must be forwarded through the R&D Committee and the medical center Director to the ACMD for R&D, VA Central Office, attention (142/4). The deadlines for receipt of reports are May 1 and December 1 of each year.

4. Any failure to adhere to the plan and schedule for correcting deficiencies described in the report that results in a significant deficiency remaining uncorrected within the time stipulated shall be reported in writing within 15 business days by the Subcommittee through the R&D Committee and the medical center Director to the ACMD for R&D (142).]

(b) **Research Proposal Review.** The Subcommittee must review and approve, require modifications in (to secure approval), or withhold approval of all research proposals when such research includes the use of live vertebrate animals and when such research is supported by VA funds and/or conducted on VA premises. The review must direct particular attention to the VA Animal Component of Research Protocol *(Appendix C)* further described in paragraph 12.08. Evaluations of the animal component forms are based on standards promulgated by the United States Department of Agriculture as authorized by the Animal Welfare Act, the Public Health Service "Guide," and the Interagency Research Animal Committee "Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research and Training." *(These guidelines are also followed by the American Association for Accreditation of Laboratory Animal Care in the process of accrediting animal research programs.)* [The Subcommittee on Animal Studies shall determine that all activities involving animals meet the following requirements:

1. Procedures involving animals will avoid or minimize discomfort, distress, and pain to the animals.

2. The principal investigator has considered alternatives to procedures that may cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources used to determine that alternatives were not available.

3. The principal investigator has provided written assurance that the activities do not unnecessarily duplicate previous experiments.

4. Procedures that cause more than momentary or slight pain or distress to the animal will:

a. Be performed with appropriate sedatives, analgesics or anesthetics, unless withholding such agents is justified for scientific reasons, in writing, by the principal investigator and will continue for only the necessary period of time.

b. Involve in their planning consultation with the attending veterinarian or designee.

c. Not include the use of paralytics without anesthesia.

5. Animals that would otherwise experience severe or chronic pain or distress that cannot be relieved will be painlessly euthanatized at the end of the procedure or, if appropriate, during the procedure.

6. The animals' living conditions will be appropriate for the species and contribute to their health and comfort.

7. Medical care for animals will be available and provided as necessary by a qualified veterinarian.

8. Personnel conducting procedures will be appropriately qualified and trained in those procedures.

9. Activities that involve surgery include appropriate provision for pre-operative and post-operative care of the animals. All survival surgery will be performed using aseptic procedures.

10. No animal will be used in more that one major operative procedure from which it is allowed to recover, unless justified for scientific reason by the principal investigator in writing, or is required as a routine veterinary procedure or to protect the health or well being of the animal, or receives specific approval by the Administrator, USDA.

11. If food or water deprivation is planned, the procedure is scientifically justified and the process by which deprivation is monitored is adequately described.]

(c) **Project Monitoring.** The subcommittee must establish a mechanism to monitor experimental animal procedures particularly when a high potential exists for producing pain or distress to animal subjects.

(d) **Annual Review of Proposals.** The subcommittee must review annually the animal component of all continuing projects submitted as described in paragraph 12.09 e.

(e) **Suspension of Projects.** The subcommittee must suspend any research project upon determination that conditions of animal care, treatment or practices are not in compliance with USDA regulations and the PHS "Guide" and conditions are not corrected promptly after notification of their existence. Such projects may be resumed only after the subcommittee has determined that corrective action has been taken.

(f) **Educational Use Review.** Proposed use of animals for instructional purposes must be reviewed and monitored by the Subcommittee following a process similar to that employed for research proposals. The Animal Welfare Act does not distinguish between animals used for research and those used for training.

(g) **Reporting of Hazardous Material.** The subcommittee must provide the Facility Safety Officer with a list of materials used in the [animal facility]. A MSDS *(Material Safety Data Sheet)* must be maintained by the subcommittee for each chemical identified as "hazardous" by the Facility Safety Officer.

12.05 LEGAL CONSIDERATIONS IN CARE AND USE OF ANIMALS

a. **Animal Welfare Act.** VA medical centers maintaining active animal research and/or training facilities are subject to provisions of the Animal Welfare Act as amended. VA animal [ ] facilities are not ordinarily inspected by officials of the USDA *(United States Department of Agriculture)* but rather are required to establish and maintain a program of self inspection conducted in accordance with regulations promulgated by the USDA as set forth in the Animal Welfare Act. An exception occurs in instances where animals owned by a non-federal institution are housed or used in a VA facility. Under

such circumstances, USDA officials are authorized to enter a VA animal [ ] facility for the purpose of inspection.

b. **Local Regulations.** If state, municipal or other local governmental entities impose rules or regulations related to procurement, care or use of animals in research that are more restrictive than are those of the Federal government, the more restrictive provisions should be followed unless an exception is approved by the ACMD for R&D, VA Central Office and if no conflict exist between Federal and other government regulations and policies.

12.06 POLICIES AND REQUIREMENTS OF OTHER FEDERAL ENTITIES

a. **PHS (Public Health Service)**

(1) Animal care and use within VA medical centers must be in accordance with the PHS policy for care and use of vertebrate animals by institutions receiving PHS awards.

(2) The PHS standards are described in a booklet entitled "Guide for the Care and Use of Laboratory Animals."

(3) Eligibility for PHS funding requires submission of a written animal welfare assurance to the OPRR *(Office for Protection from Research Risks)*, PHS, indicating that the ARF is either:

(a) Accredited by AAALAC or

(b) Evaluated by a local institutional committee following PHS guidelines.

b. **FDA (Food and Drug Administration).** Non-clinical trials of drugs or materials from which data are to be used in seeking approval of the FDA are to be performed in accordance with standards referred to as GLPs *(Good Laboratory Practices). (See 21 CFR Part 58 for standards.)*

c. **OSHA (Occupational Safety and Health Administration).** Precautions dictated by OSHA and VA manuals must be followed in use of ethylene oxide and other carcinogenic, mutagenic or toxic chemicals in the animal [ ] facility. *(See generally 29 CFR pt. 910 and VA Manual MP-3, pt. III.)*

d. **DEA (Drug Enforcement Agency).** Controlled substances used in animal [ ] facilities must be secured in accordance with regulations of the DEA. *(See 21 CFR pt. 1305.)*

e. **DOI (Department of Interior).** The use of rare and endangered species, which includes species of nonhuman primates, is regulated by the DOI. Information regarding such regulations may be obtained by contacting the Office of Endangered Species, U.S. Department of Interior, Fish & Wildlife Service, Washington, DC 20740.

f. **NRC (Nuclear Regulatory Commission).** VA policies for the use of material subject to NRC regulations must be followed at all times. Use of radioisotopes in animal studies must be approved in advance by the appropriate subcommittee.

12.07 ACCREDITATION BY AAALAC

a. VA animal [ ] facilities must meet standards of the AAALAC or present evidence to the ACMD for R&D, VA Central Office of continuing progress toward attainment of those standards.

b. VA animal [ ] facilities not currently accredited may apply for accreditation by submitting a completed application form to the Executive Director, AAALAC. Charges assessed by AAALAC for initial and continuing accreditation are paid by VA Central Office.

c. New applicants for accreditation must have site visits by laboratory animal specialists selected by AAALAC. After review of the site visit report, the AAALAC Council will either grant full accreditation, or provisional accreditation, or withhold accreditation.

d. Each animal [ ] facility will ordinarily be revisited once every 3 years. Following such visits the AAALAC Council may grant continued full accreditation, place a facility on deferred continued accreditation or place a facility on probationary accreditation with listed deficiencies to be corrected within a specified period, or revoke accreditation.

(1) Notification of either full accreditation, deferred continued accreditation, or probationary accreditation may be accompanied by a list of required or recommended improvements. A copy of the response to the required or suggested improvements must be sent to the ACMD for R&D, VA Central Office, attention (142/4).

(2) Deficiencies that can be corrected using locally available resources should be addressed immediately. Requests should be made to VA Central Office through the appropriate regional director for funds to correct deficiencies that are beyond the scope of local resources.

(3) For VA animal [ ] facilities in which accreditation is either denied or suspended, a plan and timetable for correction of deficiencies cited must be submitted to the ACMD for R&D VA Central Office, attention (142/4), within 90 days of notification by the AAALAC of adverse action.

e. AAALAC requires submission of an annual report *(reports control exempt)* of changes in personnel or operations during the preceding 12 months by each accredited facility (see par. 12.09 b.). A copy of this report must be submitted to the ACMD for R&D (142/4), VA Central Office.

f. If an [animal facility] is not AAALAC accredited, the VA medical center may request authorization to adopt an alternate mechanism to verify compliance or monitor progress toward compliance with AAALAC standards. Requests for use of an alternative to AAALAC inspection should be directed to the ACMD for R&D (142/4), VA Central Office stipulating:

(1) Anticipated duration of alternate plan;

(2) Justification for not seeking or maintaining AAALAC accreditation;

(3) Proposed mechanism for evaluating and monitoring progress toward compliance with AAALAC standards;

(4) Existing condition of the [animal facility] using a completed "AAALAC Outline for Description of Institutional Animal Care and Use Program."

g. VA medical centers operating under an alternative to AAALAC accreditation must submit to VA Central Office by January 1, 1989, and annually thereafter, within 30 days of the end of the calendar year, a report of operational changes, facility improvements and animal census during the preceding year.

h. Some VA medical centers may find contractual arrangements for animal care more feasible than development of on-site facilities. In such cases VA, Central Office must be informed of the location and accreditation status of the contract facility. If the contract facility is not accredited, VA Central Office must be provided a description of means by which a determination has been made that standards of AAALAC and the USDA are met.

i. For facilities exempted from seeking AAALAC accreditation and those for which accreditation is denied, the ACMD for R&D, VA Central Office, will ordinarily designate an oversight committee of laboratory animal medicine specialists to conduct an initial site visit and periodic reinspections.

j. Only those VA facilities in which the [animal facility] is AAALAC accredited *(full, provisional, [deferred continued] or probationary)* or which are operated under an alternate plan approved by the ACMD for R&D are eligible to receive R&D funding for studies that employ animal subjects.

12.08 ANIMAL COMPONENT REVIEW

a. Any research proposal that entails use of live vertebrate animals must be accompanied by a completed Animal Component of Research Protocol following the format prescribed by VA Central Office *(Appendix C)* [if funding *(partial or full)* is requested from VA Central Office R&D Services. Use of the format prescribed by VA Central Office is also recommended if VA facilities are to be used regardless of funding source.

b. Instructions for completing the form are as follows:

(1) Information provided should be sufficiently detailed that reference to the body of the proposal is not required. A local Animal Studies Subcommittee may require additional information. The additional information may be added as an appendix to the VA Central Office prescribed form.

(2) Address all items on the form. If an item is not applicable, indicate so on the form by "N/A" *(do not leave the space blank)*. Where space provided is not adequate, additional pages may be added as appendices.

(3) Prepare a separate description of the animal for each animal species used in the proposal.

(4) Give particular attention to the justification for use of the proposed animal model when rare or endangered species, nonhuman primates, dogs or cats serve as the animal model.

(5) Number the pages sequentially at the bottom of the each page.

(6) Attach the completed Animal Component of Research Protocol and required appendices to the research application.]

c. Animal Component of Research Protocols must be reviewed by the Animal Studies Subcommittee which may:

(1) Approve the form as submitted.

(2) Disapprove the form as submitted.

(3) Return the form to the initiator for modification, clarification, or additional information and resubmission to the Animal Studies Subcommittee.

d. Upon approval by the Animal Studies Subcommittee, Animal Component of Research Protocols must be signed and dated in spaces designated. Minority opinions of the subcommittee shall be noted on the last page of the form.

e. Following receipt of proposals with approved Animal Component of Research Protocol forms by VA Central Office, Animal Component of Research Protocol forms will be sent to external Veterinary Medical Reviewers by VA Central Office.

f. Veterinary Medical Reviewers selected by the Office of the ACMD for R&D, VA Central Office examine animal component forms to ensure that all elements of animal care and use are appropriate based on standards of the "Guide," USDA animal welfare regulations and the Interagency Research Animal Committee principles of animal care and use. Scientific merit of proposals is not of primary concern to Veterinary Medical Reviewers. After evaluating an animal component form, the Veterinary Medical Reviewer will prepare a brief report indicating either that the animal component is acceptable as described or expressing concerns regarding specific elements of animal care and use. For proposals in which the Veterinary Medical Reviewer notes concerns, a recommendation may be made to:

(1) Direct the PI *(Principal Investigator)* to discuss a particular issue or issues with the VMO or VMC, in which case a response to VA Central Office is not required.

(2) Have the issue(s) resolved among the PI and the local Animal Studies Subcommittee and the VMO or VMC with further review by VA Central Office not required.

(3) Withhold approval until issues raised are resolved among the PI, the local Animal Studies Subcommittee and the VMO or VMC and this resolution approved by VA Central Office.

g. Veterinary Medical Reviewers' reports are forwarded to the committee reviewing proposals for scientific merit which may concur completely or partially with the Veterinary Reviewer's recommendation or disagree with the recommendation of the Veterinary Medical Reviewer. When the peer review committee agrees with recommendation of the Veterinary Medical Reviewer, the recommendation should be noted on the summary statement.

h. If the peer review committee does not fully concur with the Veterinary Medical Reviewer's recommendation, the proposal with its animal component form, the summary statement and the Veterinary Medical Reviewer's Report should be forwarded to the CVMO *(Chief Veterinary Medical Officer)*, VA Central Office. The CVMO must then recommend action to the Director, Medical Research Service, the Director of Health Services R&D Service or the Director of Rehabilitation R&D Service as appropriate.

i. When funds are withheld due to concerns regarding the animal component, the PI must, in order to secure funding, submit a response through the local Animal Studies Subcommittee, the R&D Committee, and the VA medical center Director to the appropriate R&D Service Director, VA Central Office. Upon receipt of a satisfactory response, as determined by the CVMO, funds may be released.

j. If during a research study a PI wishes to modify procedures described in the Animal Component of Research Protocol form, such changes should not be made until approved by the Animal Studies Subcommittee. When the Animal Studies Subcommittee approves substantial modification of an animal component form, the subcommittee must submit notification of this action to the ACMD for R&D, VA Central Office, attention (142/4). This is especially important when such changes are likely to produce a level of pain or distress to animal subjects greater than procedures described in the original animal component form or when the proposed procedure modification is aesthetically unpleasant. [If the original proposal did not include an approved animal component, a completed Animal Component of Research Protocol shall be forwarded to the ACMD for R&D, attention (142/4) following approval by the local Animal Studies Subcommittee.]

12.09 REPORTS

a. An Annual Report of Research Facility, IRCN 0180-DOA-AN, using a standard form provided by the USDA must be prepared by each VA medical center with a functioning animal facility. Completed forms must be submitted by November 15 each year as a component of part II of the RDIS *(Research and Development Information System)* Report *(VA Form 10-5368)* to the BECC (Biomedical Engineering and Computer Center), Sepulveda, CA. The BECC forwards [one copy] of the USDA Annual Reports to VA Central Office attention (142/4) [and a second set of copies to the Western Sector Office of the USDA.] Negative reports are required of VA medical centers with animal facilities inactive during the 12 months preceding the report due date.

b. AAALAC Reports. Each AAALAC accredited [animal facility] must prepare an annual report describing changes in facilities, personnel and [animal facility] operations during the previous year. A copy of the report must be submitted to the ACMD for R&D, VA Central Office, attention (142/4).

c. Semiannual reports of [animal facility] inspections must be prepared by the Animal Studies Subcommittee as described in paragraph 12.04, l.(2)(a).

d. Preparation of the RDIS report is described in chapter 4. Information regarding use of animal subjects in VA R&D programs is required when the research activity includes an animal component.

e. An annual review of animal studies is required for studies in which live vertebrate animals are used and for which funding is approved for a period exceeding 1 year. The review is due on the anniversary date in which funding commences [or a date specified by the Animal Studies Subcommittee] and annually thereafter for the duration of the project. A memorandum must be submitted by the PI to the Animal Studies Subcommittee not later than 1 month before the scheduled review either:

(1) Stating that the animal component is unchanged from that described in the approved proposal, or

(2) Describing any changes in the animal component of the study.

12.10 OCCUPATIONAL HEALTH AND SAFETY

a. **Personal Hygiene.** Each field VA medical center must develop a written directive concerning personal hygiene for personnel engaged in the care and use of experimental animals. The directive must include instructions about wearing and cleaning of

protective clothing, smoking, eating and drinking practices in research laboratories and animal care areas and hand washing following contact with animals or animal tissues. Personnel subject to this directive must be made aware of its provisions.

b. **Preventive Medicine.** Each VA medical center with a program of research in which laboratory animals are used must develop a written directive establishing a program of preventive medicine for personnel engaged in the care and use of experimental animals.

[(1) The program must include provisions for physical examinations, immunization, health monitoring, reference serum collection and storage, injury prevention and means of familiarizing personnel with risks of zoonotic diseases.

(2) Employees whose duties require significant contact with dogs, cats, bats or wild carnivores shall be provided the opportunity of receiving preexposure rabies immunization in accordance with current recommendation of the PHS *(Public Health Service)* Center for Disease Control. The Personnel Health Service shall procure and administer the vaccine at no cost to employees requesting immunization.

(3) Transporting animals into or through areas used by patients or visitors is to be avoided when feasible. When essential to do so, all reasonable means of minimizing health risks to patients and visitors should be observed.]

c. **Hazardous Chemicals**

(1) Responsibilities of the Animal Studies Subcommittee regarding hazardous chemicals are described in paragraph 12.04, l. (3)(g).

(2) The words **"HAZARDOUS: MSDS required"** must appear on all purchase requests for hazardous chemicals.

12.11 EDUCATION AND TRAINING

Each VA medical center with a program of research in which laboratory animals are used must implement a program of training for scientists engaged in animal experimentation, animal technicians and other personnel responsible for animal care and use. The training should include instructions on:

a. Humane and scientifically sound practices of animal care and use.

b. Research or testing methods that minimize or eliminate the use of animals or limit animal pain and distress.

c. Procedure for reporting improper care or use of animals to appropriate VA officials.

d. Any special skills required in performance of animal manipulative procedures employed in the course of experimentation.

e. Employee rights to a safe and healthy workplace under the Occupational Safety and Health Act, Public Law 91-596 and Executive Order 12196.

NOTE: *More specific training requirements are being developed and will be issued at a future date.*

REQUEST TO USE EXPLOSIVE AGENTS

1. Name of explosive agent and its Material Safety Data Sheet.
2. Beginning and ending dates during which agents are to be used.
3. Nature of study(ies) for which use of an explosive agent is proposed.
4. Justification for use of an explosive agent rather than a non-explosive agent.
5. Name and title of responsible investigator.
6. Name and title of individual administering agent.
7. Species, weight, and approximate number of animal subjects to be anesthetized, or euthanatized.
8. Building and room number in which agent is to be used.
9. Description of the procedure including assurance that:

a. Procedures are performed within a properly operating, ventilated safety hood.

b. All electrical equipment used with the agent are placed and powered outside the hood.

c. Once the seal is broken on containers of ether or other explosive anesthetic agents, the must be:

(1) Placed into a safety hood throughout use,

(2) Stored in an explosion proof refrigerator, or safety hood, or

(3) Discarded properly whether uncompletely or completely used.

d. Disposal procedures for items containing traces of the agent are safe and appropriate.

_____ _____
Signature of Investigator Date

Approving Officials:

_____	Approved_____	_____
Chairperson, Animal Studies Subcommittee	Disapproved_____	Date
_____	Approved_____	_____
Veterinary Medical Officer	Disapproved_____	Date
_____	Approved_____	_____
Facility Safety Officer	Disapproved_____	Date
_____	Approved_____	_____

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September 17, 1990

VHS&RA Regional Safety Officer — Disapproved_____ — Date

_____ — Approved_____ — _____

ACMD for R&D, VA Central Office — Disapproved_____ — Date

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September 17, 1990

REQUEST TO USE PATIENT CARE PROCEDURAL AREA FOR ANIMAL STUDIES

1. Name of principal investigator.

2. Concise statement of the potential benefit of such use to patient care.

3. Species and number of animals to be used.

4. Potential pain or distress to animal subjects and procedures to be taken for prevention or alleviation of pain or distress.

5. Equipment and location of patient care area to be used.

6. Date(s) procedure(s) to be performed.

7. Complete description of measures to be taken to prevent transmission of diseases or parasites from animals to patients and patient care personnel.

8. Complete description of measures to be taken to prevent disturbance (e.g., noise) to patients and patient care personnel.

9. Complete description of methods to be employed to prevent contamination of equipment and room surfaces by animal feces, urine, saliva, blood, or other body fluids.

10. Details of procedures to be followed in cleaning and disinfecting equipment and room surfaces following use.

_____ _____

Signature of Principal Investigator Date of Submission

Signatures of Approval:

_____ _____

Chairperson, Animal Studies Subcommittee Date

_____ _____

Veterinary Medical Officer Date

_____ _____

Chairperson, Clinical Executive Board Date

_____ _____

Associate Chief of Staff for R&D Date

_____ _____

Chief of Staff Date

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Facility (Hospital or Clinic) Director _____ Date _____

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ANIMAL COMPONENT OF RESEARCH PROTOCOL

Name of Principal Investigator:

Proposal Title:

Protocol No. *(from R&D Office)*: **Date:**

Animal Species *(separate form for each species)*:

Anticipated beginning and ending dates of animal studies described in this protocol:

I. OVERVIEW *(attach an abstract or copy of VA Form 10-1313-2, Summary Description of Program/Project as Appendix A-1)*

A. Describe experimental procedures and manipulations of the animals and their intended purpose. Be brief and specific (e.g., cannulas will be placed into the cerebral ventricle to administer opiates and determine effect on eating behavior). *[Summarize in narrative form the procedures and manipulations to be performed using animals and explain why the procedures and manipulations are performed.]*

B. Describe the characteristics of the animal that justify its use in the proposed study. *[Describe characteristics of the animal model that make it the most appropriate for the study. This might include consideration of body size, data from previous studies or unique physiological features. Cost alone is not an acceptable justification for selection of the animal model.]*

C. Qualifications

State the name(s) and describe qualifications (education, training and relevant experience with experimental animals) of individual(s) conducting this study. *[Indicate previous experience and training of personnel performing the procedures described. This should enable reviewers to be certain that animal surgery or other manipulations of animal subjects are performed by individuals qualified to accomplish the procedures skillfully and humanely. A listing of academic degrees is not an adequate response to this question.]*

II. ANIMAL SUBJECT DESCRIPTION

Species: **Strain/Breed:**

Sex: **Age/Size:**

Source:

Microbial Status (e.g., SPF, Conventional):

Number of Animals to be Used per Year:

Year 1	Year 2	Year 3	Year 4	Year 5

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Describe how the number of animals needed for the study was determined. *[Species, Strain/Breed, Sex, Age/Size and Source are self explanatory. The Microbial Status may be axenic, gnotobiotic, specific pathogen free or conventional. The number of animals to be used each year of the proposed study should be listed in the appropriate column. Following the list of number of animals to be used each year describe how this number was determined. The smallest number required to obtain scientifically valid information should be used and statistical calculations should be noted when appropriate. The number of animals comprising the experimental groups and the number serving as controls for the duration of funding requested should be listed.]*

III. ANIMAL HUSBANDRY AND CARE

A. Are all animal husbandry and other handling practices and procedures, including animal health monitoring, diet, primary enclosures, environmental control, and means of identification as described in the local standard operating procedures manual? YES__ NO___ If not, attach a description of deviations from standard procedures and practices as Appendix A-2. *[Each VA animal facility should have a standard operating procedures manual. If animal husbandry and care practices planned deviate from those described in the standard operating procedures manual, they are to be described in an appendix. The husbandry and care practices should meet standards described in the Guide for the Care and Use of Laboratory Animals.]*

B. Where are animals to be housed? *[List building and room numbers.]*

C. What is the current AAALAC accreditation status (full, deferred continued, probationary, provisional) of the VA animal facility? *[Research supported by the VA must be performed in facilities meeting standards of the American Association for Accreditation of Laboratory Animal Care (AAALAC). Stipulate whether the animal facility is currently provisionally or fully accredited or is under deferred continued full accreditation or on AAALAC probation. A small number of VA animal facilities are operated under a temporary VA Central Office approved alternative to AAALAC accreditation. In such cases this should be noted.]*

D. Are animals to be housed in non-VA facilities? YES__ NO__ If yes, are the facilities AAALAC accredited? YES__ NO__ If facilities are not AAALAC accredited, how was their adequacy evaluated? *[If animals are to be housed in unaccredited, non-VA facilities, explain how the facilities were determined to be adequate by the Subcommittee on Animal Studies.]*

E. Is medical care for animals available and provided as necessary by a qualified veterinarian? YES__ NO__ If not, explain: *[Adequate veterinary medical care must be provided as described in R&D Manual M-3, part I, 12.04 d. and subsequent revisions.]*

IV. EXPERIMENTAL PROCEDURES

A. Location *(building and room number)* **at which experimental procedures are performed.**

B. Test Substances, Cells or Hazardous Materials
Will radioisotopes, toxic, antigenic, pharmacologic, infectious, carcinogenic or other types of test substances or cells be administered to live animals as part of the experimental protocol? YES__ NO__ If no, proceed to item C; if yes, complete items 1-4 below.

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(1) List the test substance(s), amount to be used, frequency and route of administration and expected effects of the substance(s): *[Any material to be administered as part of the study other than biological or pharmaceutical agents employed to provide appropriate medical care or alleviate pain and distress is to be listed. Substances used to stimulate antibody production and tumor transplants are examples of substances that should be included in this section.]*

(2) Hazardous Materials

Are any of the substances hazardous materials (e.g., toxic, radioactive, infectious, carcinogenic)? YES__ NO__ IF yes, what is the name of the hazardous material(s)? If radioisotopes are used, has the Radiation Safety Officer been consulted? YES__ NO __ Attach a copy of the Biohazard Statement or a description of precautions that will be followed to protect personnel and animals as Appendix A-3. *[If a Biohazard Statement is not attached, include as an appendix a description of precautions to be followed to protect personnel and animals, the length of time the hazard is a threat, means of decontaminating and method of waste and carcass disposal. If a radioisotope is used, note its predicted half life. A local Animal Studies Subcommittee may require a detailed description of precautions in addition to a Biohazard Statement.]*

(3) Will the test substances(s) cause animal pain, discomfort or distress? YES__ NO__ If yes, to what degree and what measures will be taken to alleviate or minimize these adverse effects? *[The nature and degree of pain, discomfort or distress should be noted and means used to alleviate or minimize these effects described.]*

(4) Is death used as an end point in this study? YES__ NO__ If yes, explain why an earlier end point is not acceptable. *[Death may be an acceptable end point; however when experimental design permits, it is preferable that a point prior to death be established at which the study will be terminated. If animals are euthanatized, death is not considered the end point and an explanation is not required.*

C. Specimen Collection

(1) Is animal use limited to euthanasia followed by tissue harvesting? YES_ NO__ If no, proceed to item C.2. If yes, proceed to item F., Euthanasia. *[If no experimental procedures are performed prior to euthanasia, proceed to Item F., Euthanasia.]*

(2) Are invasive procedures to be employed for collection of tissue or body fluids from live animals during experimentation? YES__ NO__ If yes, describe: *[Body fluids may include blood, lymph, ascitic fluid, cerebrospinal fluid or other fluids collected by aspiration or similar means. Collection of urine in a metabolism cage would not be an invasive procedure.]*

(a) Tissue or body fluid(s) to be collected:
(b) Method of specimen collection:
(c) Amount and frequency of collection:
(d) Anesthetic, sedative or tranquilizing agent and dosage administered prior to specimen collection:

D. Surgery

(1) Are surgical procedures to be performed as part of the experimental protocol? YES__ NO__ If no, proceed to item E. If yes, describe the surgical procedures and

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complete items D.2-5. *[Minute details of the surgical procedure are not required, however the description should include the surgical approach (e.g., ventral midline incision), organ involved (e.g. left nephrectomy), implants (e.g., carotid catheter), and method of incision closure. From this description, reviewers will be able to determine the level of potential pain that should be considered, degree of physical impairment that might result and postoperative complications that might be anticipated.]*

(2) What preoperative procedures (e.g., fasting) and medication, including anesthetics and analgesics, will be employed prior to surgery? *[The method of anesthesia should be described, including route of administration and anesthetic dosage or a statement that the anesthetic is given to effect. Other preoperative procedures that might be described include the administration of a preanesthetic, withholding of water and/or food and administration of sedatives, antibiotics or other drugs.]*

(3) Are paralytic agents used in conjunction with surgical manipulation? YES__ NO__ If yes, how will the absence of pain be assessed? *[The fact that paralytic agents abolish reflexes ordinarily used to measure depth of anesthesia must be recognized and alternate means of assessing the absence of pain must be established. The Animal Welfare Act prohibits the use of paralytic agents without general anesthesia.]*

(4) Describe the monitoring and supportive care provided during surgery: *[Means of maintaining and monitoring surgical anesthesia during prolonged procedures should be described. In addition, means of maintaining and monitoring body temperature, fluid and electrolyte balance and heart and respiratory rate might be described.]*

(5) Are animal subjects expected to regain consciousness following major surgical manipulation? YES__ NO___ If answer is no, proceed to item E. If answer is yes; *[Major operative procedures on species other than rodents are to be conducted only in facilities intended for that purpose. Operative procedures on rodents and minor surgery of non-rodent species do not require a dedicated facility, but must be performed using aseptic procedures. Scientific justification is required if an animal is to be used for more than one major operative procedure from which it is allowed to recover. Major surgery is defined as penetration and exposure of a body cavity or any procedure that has the potential to produce permanent impairment of physical or physiological functions. Appropriate medical care must be provided during the post-operative period in accordance with established veterinary medical and nursing practices. Of particular concern is that analgesics, when indicated, are administered.]*

(a) Is surgery performed in a room or area intended for aseptic surgery? YES__ NO__ If not, explain:

(b) Is aseptic technique followed including use of sterile surgical gloves and instruments and aseptic preparation of the surgical field? YES__ NO__ If not, explain:

(c) Is more than one major survival surgical procedure to be performed on a single animal? YES__ NO__ If yes, explain:

(d) What care will be provided during the postoperative period (include dosages) and what criteria will be used to assess the need for analgesics?

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(e) What arrangements will be made for providing routine postoperative care and detecting and managing postoperative complications during the normal work day, weekends, holidays and after normal duty hours?

E. Other Experimental Procedures

Will animals be subject to any experimental procedures not noted elsewhere in Section IV (e.g., prolonged physical restraint, food or water deprivation, noxious stimuli, environmental stress)? YES__ NO__ If yes, describe the procedures and methods that will be employed to monitor animals and minimize discomfort. *[Behavioral studies, experimentally induced illness, dietary manipulations, exposure to temperature extremes and forced exercise are examples of procedures that may be described in this section. If food or water deprivation is planned, the procedure must be scientifically justified and the process by which deprivation is monitored described as required by USDA regulations.]*

F. Euthanasia

(1) Are animals surviving an experiment euthanatized at completion of the study? YES__ NO___ If yes:

(a) What procedure will be employed? If a chemical agent is to be used, list dosage and route of administration:

(b) Who will perform euthanasia and what is the training and experience with the procedure? *[The training and experience of the individual performing euthanasia should be specific for the species and method used. When euthanasia is performed by an individual lacking appropriate skills, the procedure must be properly supervised.]*

(c) Does the method of euthanasia meet current recommendations of the AVMA Panel on Euthanasia? YES__ NO__ If not, provide justification for deviating from the recommendations. *[Deviations from the AVMA Panel on Euthanasia recommendations may be acceptable but must be based on scientific justification.]*

(2) If animals are not euthanatized at the completion of the study, describe means of disposal or further use. *[If surviving animals are not euthanatized upon completion of the study, describe whether they are used for additional studies, transferred to another investigator, sold or disposed of by other means.]*

V. SPECIAL CONSIDERATIONS

A. Are procedures employed that are likely to cause more than momentary or slight pain or distress to the animals? YES__ NO__ If yes: *[Any procedure that would cause more than momentary or slight pain or distress to a human should be presumed to cause similar discomfort to an animal unless evidence to the contrary is available.]*

(1) Have alternatives, such as a less sentient animal model, computer models or tissue culture been considered? YES__ NO__ Describe methods and sources used to determine that suitable alternatives were not available. *[The Animal Welfare Act requires that if*

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procedures producing more than slight or momentary pain are performed, a written narrative description of the methods and sources used to establish that alternatives were not available must be prepared. They offer as an example of a source the Animal Welfare Information Center (National Agriculture Library, 10301 Baltimore Boulevard, Beltsville, MD 20705).]

(2) Has a Doctor of Veterinary Medicine been consulted in planning the procedure as stipulated in the Animal Welfare Act? YES__ NO__ If no, explain: *[Guidance and assistance of the attending or consulting veterinarian should not be limited to painful procedures. However, the Animal Welfare Act specifically requires that when procedures cause discomfort, distress or pain to the animals used, the attending veterinarian or designee must be involved in planning the study.]*

B. Are procedures employed that are intended to study pain? YES__ NO__ If yes, describe and justify: *[Procedures designed to study pain should be identified and justified.]*

C. Are drugs classified by the DEA as controlled substances used? YES__ NO_ If yes, what controlled substances are used and what precautions are taken to avoid unauthorized access to these substances? *[Controlled substances should be stored in a locked cabinet or otherwise protected from unauthorized access.]*

D. Is a patient procedural area to be used for animal studies? YES__ NO__ If yes, attach copy of an approved "Request to Use Patient Care Procedural Area" as Appendix A-4. *[The use of patient care areas and equipment for animal studies requires administrative approval as described in R&D Manual M-3, part I, 12.04 k.]*

E. Is ether or other explosive anesthetic agent to be used? YES__ NO__ If yes, attach copy of an approved "Request to Use Explosive Anesthetics" as Appendix A-5. *[The use of ether or other explosive agents in the animal facility requires approval as described in R&D Manual M-3, part I, 12.04 j.]*

VI. SIGNATURES

A. Certification by Principal Investigator

I affirm that to the best of my knowledge, information provided in this Animal Component of Research Protocol is complete and accurate and that no changes will be made without advance approval of the Subcommittee on Animal Studies. I further certify that these studies do not unnecessarily duplicate previous experiments.

_____ _____

Signature **Date**

B. Approval Signatures

The undersigned have evaluated the care and use of animals described in this protocol in accordance with provisions of the USDA Animal Welfare Act, the PHS Guide for

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the Care and Use of Laboratory Animals and the U.S Interagency Research Animal Committee Principles for the Utilization and Care of Research Animals and find the procedures described appropriate and acceptable. (Comments and dissenting views may be noted below the approval signatures.)

Typed Name	Signature	Date
Veterinary Medical Officer or VM Consultant _____	_____	
Chairperson, Subcommittee on Animal Studies _____	_____	
Chairperson, R&D Committee _____	_____	

VII. Comments:

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